World's Gold Output Greatly Curtailed by the High Cost of Mining

Movement of Metal During War Shows How the United States Came To Be Huge Creditor Nation

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THE economic situation has been changing rapidly and it is difficult to account for changes which are momentous and have a serious bearing upon the solution of problems of the present and of the immediate future.

In 1915 the high point of the production of the world's gold was attained, $469,000,000 being credited to that year. The decline in gold production has since been rapid. The percentages of reduction of output in the last three years with respect to the production of 1915 are as follows: The total decrease in the world's production is 20 per cent. The curtailment for South Africa was only 6.4 per cent. The fact that the decline in South African production was so much less than in the total world production arises through South Africa being more remotely situated from the centre of economic pressure. The operators of South Africa had probably accumulated large food and equipment supplies, which postponed the necessity of making purchases in the higher-priced market which followed. Another factor which may account for this condition is the improvement in recovery in the treatment of South African ores, which has tended to compensate for the economic conditions that have been so universally oppressive to the gold mining industry generally.

Continuous Decline In Australian Output

In Australia, a country which was no less remote from the centre of economic pressure, but in which the resources of the gold mines are becoming rapidly exhausted, there has been a continuous decline for the last three years, totalling 45.5 per cent. The decrease in output in Canada is 26 per cent for this period of three years; in British India, 13 per cent, and in Rhodesia, 15.8 per cent. The entire decline in the gold production of Great Britain, including all of her colonies, amounts to $46,000,000 for the same period, and represents 15.4 per cent of the total production for 1915.

In the United States the drop in production is 32.2 per cent. Of the total decline of $92,000,000 in the world's gold production, that in the production of the United States accounts for one-third, or approximately 35 per cent of the total, whereas normally the gold mines of the United States produce one-fifth of the world's gold output. This denotes the extreme economic pressure to which the gold mining industry of the United States was subjected on account of the existing international situation and reflects the volume and rapidity of the financial mobilization of the United States upon entering the war. The effect was much more acute here than it was in some other countries that had felt the pressure from the beginning in 1914.

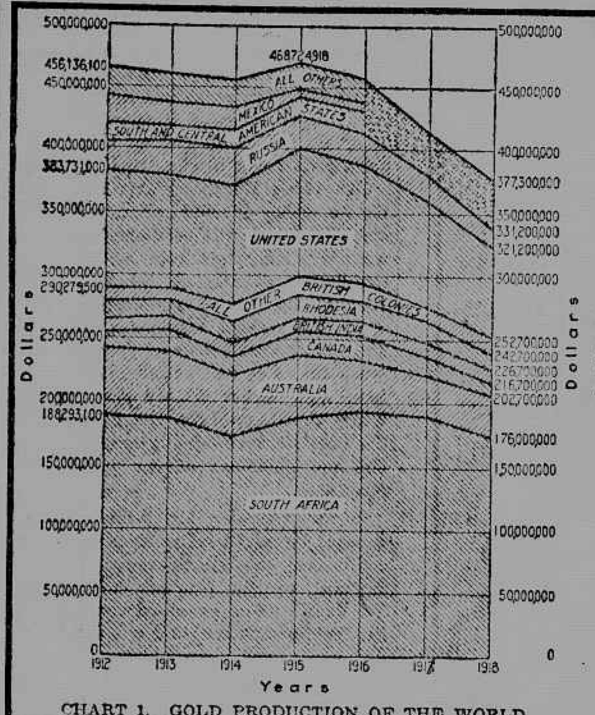

CHART 1. GOLD PRODUCTION OF THE WORLD

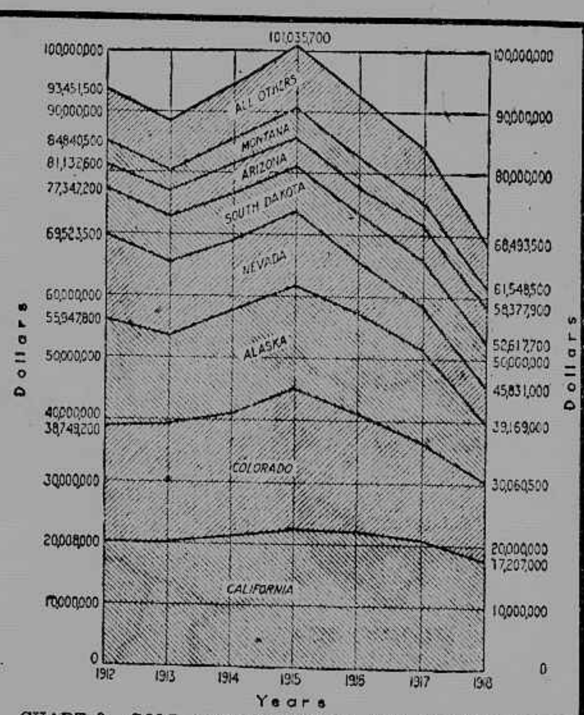

CHART 2. GOLD PRODUCTION OF THE UNITED STATE

Russia naturally shows the effect of disorganized government. The Russian decline in gold production is 62 per cent for the last three years, a drop from $26,000,000 to $10,000,000, and this indicates more eloquently than anything else the effects of Bolshevism.

Where a Gain Is Shown

The South and Central American states show an increase of 5.3 per cent in gold output, and it is altogether likely that some of that gain has been attained by the increased recovery of byproduct gold from the treatment of copper ores. The Mexican crisis in gold production occurred in 1915, and happened to coincide with the year in which the high point of the world's gold production took place, and it is evidence of the chaos in which the Mexican government found itself at the beginning of the revolution. The production was a little over $6,000,000 in 1915, and in three years it has increased to $10,000,000, a gain in output of 66 per cent. All countries of the world not heretofore mentioned show an aggregate decline in production of 4.2 per cent.

To analyze the situation of the United States more carefully, I have prepared a chart on exactly the same principle as the world-production chart and covering the same years, from 1912 to 1918, inclusive. California is shown by the chart to have just about maintained its production ratio to that of the United States, in a somewhat similar manner as South America maintained its production with respect to the world, notwithstanding the fact that the economic pressure was so severe in the United States. This may be accounted for because of the fact that much of the California output comes from placer mining, in which labor is not as large a factor in the cost of production. The decline in California gold production is 23.7 per cent. In Colorado the decline is 45 per cent. This marked variation in ratio is due in part to the difficulty in obtaining labor and also to the complexity of ore treatment in Colorado, which involved the use of chemicals, the price of which advanced rapidly as the war progressed.

In Alaska there is recorded a decline of 45.5 per cent, which corresponds exactly with the decline of Australia, and it can be accounted for not altogether by the economic pressure, but also by the closing down of the Treadwell mine, which was an important factor in contributing to the Alaskan output. Nevertheless, the decrease in production since 1917 shows the tremendous effect of the war on Alaskan gold mining.

In Nevada the decline of 44 per cent in gold output was due largely to the complex treatment of the ores of that state, and the fact that its mines are situated far from the coast, thereby making labor difficult to retain.

In South Dakota the Homestake mine, which is well developed and has a large reserve of homogeneous ore, was able without difficulty to maintain the normal output. The production of this mine contributes by far the larger portion of the gold output of South Dakota, and the decline for this state was only 8.3 per cent.

The copper production of Arizona has expanded rapidly in the last three years, and to that expansion must be accredited the increase of gold output, in the period under review, of 26.4 per cent. Montana recorded a decline of 36.3 per cent, and all of the states and dependencies of the United States, not before mentioned but combined, show a loss of 33.4 per cent, which corresponds closely to the general loss for the entire production of the United States, which was 32.2 per cent.

The third chart is devised to show the effect of a combination of factors which explains in part the decline of the gold production throughout the world in the last three years. In 1912 the hypothetical quartz gold mine which I have chosen as an example yielded $12 a ton, and the total cost of production was $7 a ton. The cost of production an ounce was $11.70 and the profit was $8.30 an ounce. I have assumed the price of gold at $20; the depreciating value of the ore with depth and the increased cost of production regardless of any change in the economic conditions. As a consequence in 1913 I have assumed a recovery of $11 a ton at a cost of $7.50 a ton. In this case there is a production cost an ounce of $13.60 and the net profit was $6.40 an ounce. For 1914 I have assumed a recovery of $10 a ton and a cost of production of $8.50, which combine to make a cost of $16 a ton and a net profit of $4 an ounce.

The last chart, No. 4, shows the gold imports and exports to and from the United States from the fiscal years 1913-'14 to 1917-'18 ended June 30. The year ended June 30, 1914, shows a gold balance against the United States of $45,000,000, but in the next year, ended June 30, 1915, there is recorded a gold balance in this country's favor of $25,000,000. There would have been a still greater amount for that year had it not been for the fact that all United States foreign securities were liquidated against the trade balance, which was then in the nation's favor.

Inflow of Gold to U. S.

In the next year, ended June 30, 1916, there was a gold balance in favor of the United States of $404,000,000, which indicated that the period of security liquidation had ceased and that gold was being paid to offset a still larger trade balance in favor of the country.

The year ended June 30, 1917, shows a gold balance in favor of the United States of $865,000,000, the total imports of gold for that year amounting to $977,000,000. Much of this gold was paid by neutral nations, which contributed to strengthen the financial position of the United States upon the country's entrance into the war. In no other way is it clear that these neutral nations could have more effectually contributed to the Allied cause.

I want particularly to point to the fact that, from June 30, 1917, a rapid decline took place in the movement of gold either to or from the United States. In fact, the country developed an adverse balance of $66,000,000 in actual gold in the year ended June 30, 1918, America's first year of the war, and since that time the gold movement has been practically negligible on account of the uncertainty of the outcome of the peace treaty.

It can be readily seen that the United States has become, by having liquidated its obligations in foreign countries, by having negotiated loans and by having so large a gold reserve in custody, a creditor nation.

Prophets of Lower Prices May Be Wrong

Some persons have assumed that prices are bound to drop, and are waiting to see what the trend of prices will be before they expand production. The result of this tendency to withhold investment has created a condition of stagnation in development which is just as artificial as were some of the tremendous gains made in commodity prices due to the erection of economic barriers and the imperative war demand. Had the nation at this moment concluded the period of readjustment and new construction, it might expect to be able to contract the currency, but it has not yet reached that period, and must still expand its credit structure and correspondingly expand its currency to meet that exigency.

With the signing of the peace treaty there will be a tremendous demand for the delivery of a great variety of commodities to the European countries. Those who have waited will find themselves in the same market in competition with this great demand to obtain delivery of their equipment. Aside from the delay, however, they will have passed through a period of high prices, and should be able to pay what little excess of price is now demanded for their equipment.

When the foreign demand arrives it will receive precedence of delivery over domestic requirements for the same products. And why should this not be so? These devastated countries of Europe are entering upon a period of reconstruction that is altogether vital to their existence, and they should have the first command of all needed materials. And American industry should, therefore, be prepared to place its orders during this present period, when the domestic demand may be met without conflicting with foreign delivery. This condition reminds me of the fact that, generally speaking, industrially America is "marking time" at a moment when the country should be "going over the top."

Gold Mining as A Soldier's Job

Among the various developments that could be made, the mining industry is one of the best and most promising in which the men now released from military service may participate. In times of peace the mining wage has always been the topnotch wage. There is not a cleaner business and there is not a business in which they can engage with more enjoyment, because of its outdoor life, than the mining industry.

Extracting Ore Offers Opportunity to Returned Soldiers to Earn Large Compensation in the Great Outdoors

In the matter of international trade, I have said that the United States has become a creditor nation. The United States has always, as a nation, expressed an advanced enlightened self-interest in its international relationships.

The country has goods abroad and is unable to get them home, and must, therefore, do certain things to offset this condition. It will be necessary to educate the American people, and it will likewise be necessary to educate the people of Canada, to the need of absorbing the investments of foreign countries in Canada and the United States. Why? Because foreign countries with which both Canada and the United States wish to trade have no gold to deliver. They have no goods to deliver, because their industries are paralyzed and the trade balance is against them. To draw on the currency in circulation would cripple their internal financial structure. With what will they pay? They have nothing with which to pay until a broad policy has been developed to absorb in the United States and in Canada the industrial securities of those countries in order to offset this adverse trade balance.

The first condition that is going to assist the gold mining industry is freedom of trade, which is premised upon the resumption of a sound financial relationship with foreign countries. The demand for American and Canadian materials in foreign countries is great. As evidence of this fact the companies which are holding copper at the present time, and carrying extensive margins in order to hold it, must have certain knowledge of a foreign demand which will soon materialize and absorb their product. The effect of putting gold on the open market would be given the gold miner what he justly should have, and I wish to emphasize the fact that while other metals have dropped gold has been at a constant level of price. That is an excellent omen.

Most Nations Are On Gold Basis

Most of the nations of the world are on a gold basis at this time, and other nations will find it necessary to adopt the gold standard in order that they may be able to speak in the same language as that of the majority, and they will necessarily have to adopt the same monetary vocabulary.

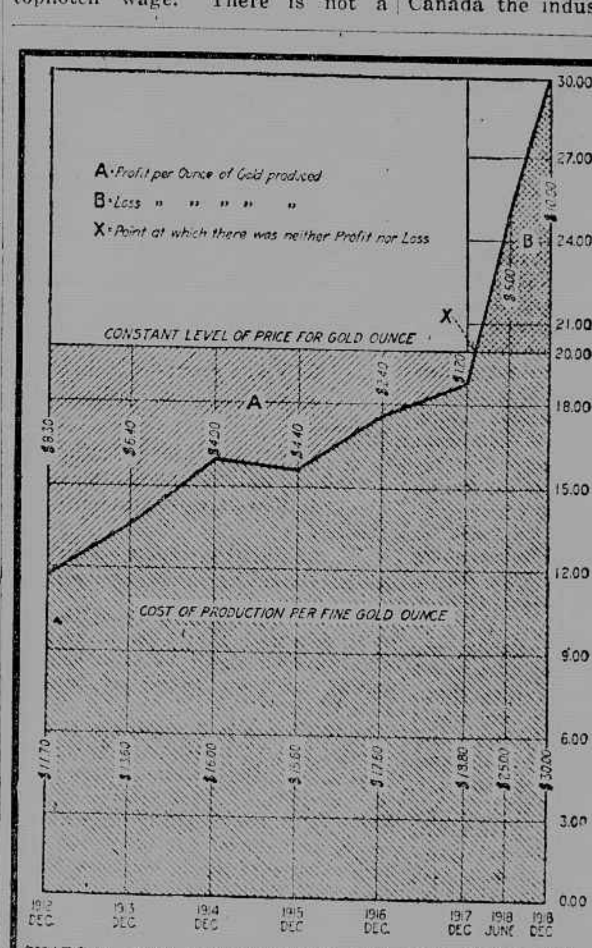

CHART 3. WAR INFLUENCE ON THE COST OF PRODUCTION PER FINE GOLD OUNCE, TYPE EXAMPLE

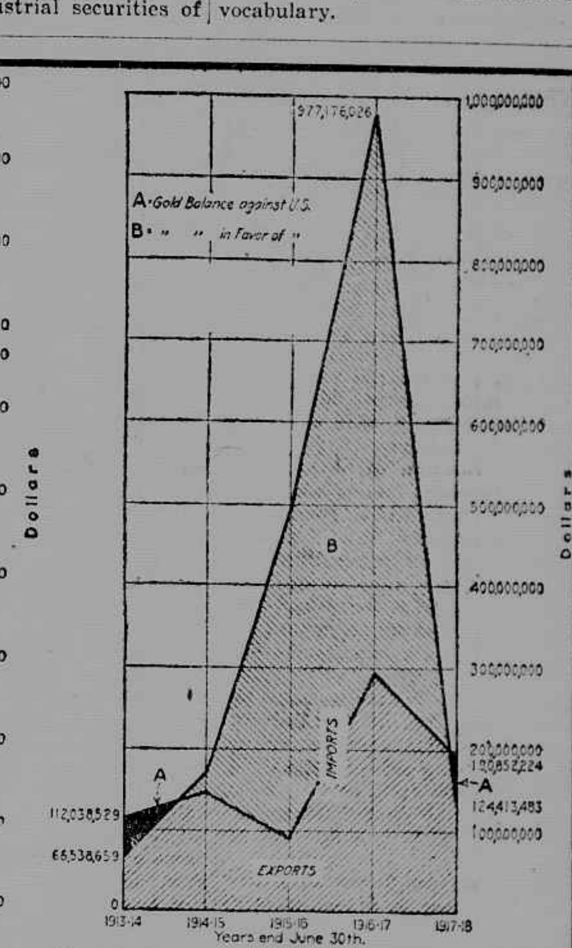

CHART 4. GOLD EXPORTS AND IMPORTS OF THE UNITED STATES, 1914-1918

How the Woollen Industry of America Recovered From Its Recent Ailment

By A. H. Garside
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THE wool manufacturing industry of this country has experienced a remarkable recovery from the depression in which it found itself early this year. On March 1 only 58.2 per cent of the woollen spindles and only 47.3 per cent of the worsted spindles were turning. By May 1, which is the latest date for which comparable figures are available, the number of active woollen spindles had risen to 83.2 per cent and the number of worsted spindles active was 74.2 per cent. The improvement is further shown by the increase in the amount of wool consumed, from 23,186,818 pounds in February to 39,159,945 pounds in April. The increase in active spindles and wool consumption up to May 1 would have been much greater if it had not been for the serious strike at Lawrence, Mass., which lasted from the early part of February to the latter part of May. With that trouble now ended, there are no labor difficulties interfering with production at the present time, and most manufacturers are operating every machine for which they can find operatives.

The industry is now running full tilt. Most manufacturers have orders on their books which will take all of the goods that they can produce until well through the summer, when normally they should be running on their new season's lines. Many mills are far behind on their contracts, and jobbers and clothing manufacturers will be unable to deliver a large portion of next fall's merchandise until well along in the retail selling season. The demand for woollen and worsted apparel at retail is so large that wholesale houses have been forced to cut down retailers' orders drastically and allot their merchandise according to the respective needs of each buyer. Meanwhile prices are strong all along the line, from the raw material to the made-up garments, and the levels at which manufacturers opened their fall lines this year now look very low indeed. A leading manufacturer of long experience said this week that in his entire career he had never witnessed such a right-about-face from depression to prosperity as that which has taken place since last February.

Why the Mills Are Now Active

The underlying reasons for this after-war activity are not difficult to discover. The diversion of manufacturing facilities from civilian to war work, the reduction in imports, the expansion in exports, the lessening of the output of American mills through the establishment of the forty-eight-hour week and through the labor trouble at Lawrence combined to produce a shortage of woollen and worsted goods which is felt throughout the country. Meanwhile the country, freed from the strain of war and the appeals to thrift and economy, the industrial workers with their extraordinarily high wages, and the soldiers doffing their khaki and putting on their "civies," have been bidding for the curtailed supply of clothing. The result is that the productive capacity of the mills is being strained to meet the demand, and the prices are being made accordingly.

As soon as this country declared war in 1917 war orders began to flow into the woollen mills, and the flood of government business swelled to such proportions that finally, just before the armistice was declared last fall, about three-fifths of the woollen and worsted spindles of the country were running on clothing and other equipment for the army and navy. It has been estimated that the total amount of production thus taken from the civilian trade was two-thirds of a full year's consumption. As this country depends on its domestic mills for more than nine-tenths of its requirements of woollens and worsteds, this extraordinary diversion of machinery from civilian lines resulted in running down stocks of goods in manufacturing and distributing channels to very low levels.

As to imports, during the last two years the volume of woollen and worsted fabrics in the piece and of carpets and carpetings brought into this country from abroad has averaged only one-third of what it was in pre-war days, and during the early months of the current year, so far as reported, it has dwindled still further. This has obviously been due to the fact that European mills have had all that they could do in supplying the military needs of their own governments. The total imports of all manufactures of wool imported have been about the same during the last two years as before the war in terms of value, but allowing for the doubling of prices, this means that the quantity of these imports has been halved.

Exports of Woollens At High Point

On the other hand, our exports of woollens and worsteds have been multiplied many times, and to-day they are at an unusually high point. Before the war we exported only a negligible quantity of woollen and worsted yarns and fabrics in the piece. These exports were so small the government did not consider it worth while to classify them separately from woollen rags and wearing apparel. Last year our exports of fabrics alone were valued at $8,568,856 and our exports of woollen and worsted wearing apparel have also increased greatly. Our total exports of all manufactures of wool are now running at the rate of over $37,000,000 a year, compared with an average of about $3,000,000 a year before the war. Assuming that values have doubled, this indicates that the quantity of exports has been multiplied fully six times.

To be sure, the decrease in imports and the increase in exports represent only a small percentage of the consumption of this country. It is impossible to ascertain exactly what this percentage is, but it is probably not more than 5 per cent. However, under the conditions which have existed in this country during the last two years every factor operating to reduce the supply of woollen manufactures has been important.

It is in the midst of these conditions that there has come the most radical reduction in the hours of operation, and consequently in output, that the American woollen industry has ever experienced. While the war was in progress and patriotic appeal was made for maximum production, the textile operatives withheld their demands for shorter hours of labor, or at least did not press them to the point of trouble, but the declaration of the armistice was the signal for an insistent demand that the forty-eight-hour week be put into immediate effect. Massachusetts mills had been running fifty-four hours a week, and in some states the working time was somewhat longer. The cut to forty-eight hours, therefore, was a reduction of over 11 per cent. It has been shown by careful investigation that when hours of operation are reduced in the textile industry the output of the mills is cut in practically the same ratio, as the volume of output is limited primarily by the speed of the machinery, and the machinery cannot be speeded up simply because hours are cut. So it is evident that the introduction of the forty-eight-hour work week has lowered the output of American woollen mills by about 11 per cent.

What Causes Delayed Deliveries

This would have been important enough in itself if it had gone into effect smoothly, but such was not the case. A portion of the workers in Lawrence, about one-fifth of the total labor force in that city, insisted that the manufacturers pay fifty-four hours' wages for forty-eight hours' work, and when this was denied them they quit their jobs. The result was a strike lasting sixteen weeks. Although only a minority of the workers at Lawrence refused to work, and most of the mills ran more or less of their machinery throughout the period of trouble, the strike serously disorganized production in this, the chief centre of the American woollen industry. The lost production thereby entailed was the cause of many of the delayed deliveries which are now greatly disturbing clothing manufacturers and distributers.

While the production of civilian goods in this country has thus been reduced to small proportions, running far behind the consumption in the last two years, conditions in Europe have been much worse.

England's great woollen mills have been pushed to the limit to supply the needs of British and Allied forces, and the British people have been forced to resort to standardized cloth to conserve their rapidly dwindling reserves of clothing. As to Belgium, Messrs. Shaler and Poland, members of the Commission for the Relief of Belgium, said in a recent report: "Work in many factories, mines, commercial and industrial establishments that might otherwise be resumed immediately cannot recommence for lack of clothing." Such a serious shortage of this essential of life is almost inconceivable.

As to Germany, which before the war was second only to Great Britain in her exports of woollen manufactures, the people have been clothing themselves in paper and have been experimenting with all sorts of vegetable fibres in their efforts to supplement their almost exhausted stocks of the standard textiles. The dearth of clothing in other countries of Europe—France, Italy, Serbia, Rumania, the former domains of Austria-Hungary, Russia and the northern neutrals—differs from those just described only in varying degree. The significance of these conditions in Europe is more fully realized when it is recalled that, prior to 1914, Europe exported to other parts of the world, over and above its imports, over $40,000,000 worth of woollen manufactures a year.

Cost of Production Has Leaped Enormously

While this world-wide shortage of clothing has been developing the cost of producing clothing has risen tremendously. Wages in the woollen mills of this country are now 130 per cent higher than they were in 1914, and, as stated, hours have been reduced more than 11 per cent. The price of the raw material has risen by 150 to 200 per cent. Ohio quarter blood wool in the grease that sold in 1914 around 22 cents is now commanding 56 to 59 cents; fine clothing Montana, scoured, that formerly sold for 50 cents, is now held for $1.40 to $1.45, and Australian geelong 56s, scoured, that was quoted in pre-war days around 50 to 55 cents, is now priced at $1.30 to $1.35. All other costs entering into manufacturing, including mill supplies, fuel and taxes, have risen to heights that would have seemed inconceivable five years ago. Woollen manufacturers see little chance of lowering their production costs materially in the near future.

The total supply of wool throughout the world is large, but it is mostly in primary markets, such as Australia, South America, South Africa and the Orient, far from manufacturing centres. The shortage of shipping is still greatly retarding the movement of wool from these distant points of production to the countries where it can be spun into yarn and woven into fabrics. The total supply of wool in this country is considerable but not excessive. The latest complete figures of stocks in the United States are those of March 31, issued by the United States Department of Agriculture. These showed that at that time the total stocks in this country aggregated about 456,000,000 pounds, consisting of 42,000,000 held by dealers, 92,000,000 held by manufacturers, 287,000,000 held by the government and 33,000,000 en route from Australasia. Since March 31, however, the government has reduced its stocks very substantially by sales at auction, and on July 1 it had only 186,828,000 pounds left, including the Australasian wool which was still at that time in transit.

Imports of Wool Exceed 400,000,000 Pounds

Imports of wool into the United States have totalled over 400,000,000 pounds a year during the last three years and have been running during the first quarter of this year at a rate of around 300,000,000 pounds for the year. The domestic clip which is now being marketed will be about the usual size, or close to 300,000,000 pounds. These statistics of stocks, imports and domestic clip may be compared with the consumption of wool in this country, which last year amounted to 710,000,000 pounds. Consumption during the first four months of this year has been much less than during the same period last year, having run at the rate of only about 435,000,000 pounds for the entire year. However, as noted, wool consumption is increasing very rapidly, and during the entire year it will aggregate very much more than the monthly figures for January to April would indicate. Furthermore, the demand is chiefly for the finer wools, which are in much less supply than the coarser varieties.

In brief, then, the woollen and worsted industry of this country is in the fortunate position of having a broad, strong demand for its products at remunerative prices. For the present, at least, it is free from labor difficulties. The only cloud on the horizon is the apparent shortage of the finer wools available for use in this country.